



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,989	10/23/2003	Sherry Draisey	14496CIP	4732

293 7590 07/14/2004

DOWELL & DOWELL PC  
SUITE 309  
1215 JEFFERSON DAVIS HIGHWAY  
ARLINGTON, VA 22202

EXAMINER

SWIATEK, ROBERT P

ART UNIT	PAPER NUMBER
----------	--------------

3643

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/690,989

Applicant(s)

DRAISEY ET AL.

Examiner

Robert P. Swiatek

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19, 30-32, 38-40 and 42-45 is/are rejected.
- 7) ☒ Claim(s) 20-29, 33-37 and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5-27-04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19, 30, 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Faget et al. (US 3,270,908). The heat shield 22 of the Faget et al. spacecraft is considered to constitute a base plate for the purposes of claim 19. The stiffness and thermal inertial properties of the heat shield are considered to exceed those of the sidewall comprising conical afterbody 14 of Faget et al. Cabin 12 of Faget et al. is “adapted” to contain at least one scientific instrument; moreover, as to claims 30, 31, the entire Faget et al. capsule is capable of being launched from the International Space Station or the space shuttle in the event the capsule were present in space with either of them.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. (US 6,467,731 B1). The Harris et al. sample return capsule includes protective skin 50, base plate 28, internal volume 60, and instrumentation 176

Art Unit: 3643

(considered to be less than 40 kg in mass). An internal power supply for the instrumentation, though not specifically noted in the Harris et al. disclosure, is deemed to be inherent. Likewise, although a communications system is not disclosed as being part of the Harris et al. capsule, use of such a system would have been obvious to one skilled in the art wishing to determine the location of the capsule both before and after reentry.

Claims 38-40, 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mockovciak Jr. (US 5,158,248). The patent to Mockovciak Jr. discloses a process of launching a reentry vehicle from an orbiting space station. In this case, the process includes the steps of unlatching a crew reentry module 12 from a space station 24 "at a computed instant," initiating a reentry trajectory toward Earth, and ultimately deploying parachutes 28, 36 to slow the craft prior to landing. As disclosed in column 3, lines 5-10, of Mockovciak Jr., the crew module includes a communications system, displays, and power sources. Not specifically disclosed is at least one scientific instrument connected to the communications system, although its inclusion here would have obvious to one skilled in the art wishing to monitor, for example, the reentry temperature profile or acceleration levels of the Mockovciak Jr. module. The Mockovciak Jr. module 12 is considered to be in Earth orbit prior to initiation of the reentry procedure or during repair of a communications satellite (column 3, lines 31-34, of Mockovciak Jr.). With respect to claims 40, 44, 45, launch of the Mockovciak Jr. crew module 12 from the space shuttle rather than a space station would have been obvious to one skilled in the art wishing to provide a means of escape from a shuttle stranded in orbit, for example; the step of checking and repairing any inoperative instrument prior to using it is standard operating

Art Unit: 3643

procedure in the aerospace industry and would have been obvious to one skilled in the art wishing to prevent possible disaster.

Claims 19-45 are objected to because of the following informalities: In claim 19, line 12, --at least one-- should be inserted before "scientific"; in claim 38, line 3, --at least one-- should be inserted before the second occurrence of "scientific," in line 4, --and-- should be inserted after "system"; in claim 45, line 2, "the non" should be changed to --any--. Applicants should note that page 19, line 1, page 20, lines 1-3, 12, page 21, line 2, page 22, line 1, page 24, line 3, and page 25, line 2, are missing one or more letters. Appropriate correction is required.

Claims 20-29, 33-37, 41 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The disclosure is objected to because of the following informalities: On page 1, line 4, the status of SN 10/022,858 should be indicated; on page 2, line 12, "one" should be changed to --ones--, in line 13, "are" should be changed to --is-- and "because" is a misspelling; on page 6, line 22 did not reproduce properly to the extent that letters are missing from several of the words (the same situation occurs on page 11, line 22, page 13, line 2, page 15, line 1, and page 16, lines 1, 22); on page 8, line 11, --and-- should be inserted after "119"; on page 9, lines 4, 6, numeral "14" has been used twice to refer to two different elements; on page 11, line 12, "obits" is a misspelling.

Appropriate correction is required.

Art Unit: 3643

The patents to Paine (US 3,606,212), Wittmann et al. (US 4,679,752), and Van Woerkom (US 6,135,391) have been cited to provide additional examples of spacecraft systems.

RPS: 0703/308-2700  
6 July 2004

*Robert P. Swiatek*

ROBERT P. SWIATEK  
PRIMARY EXAMINER  
ART UNIT 383 3643